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(54) **SUBMARINE BOW DOME ACOUSTIC
SENSOR ASSEMBLY**

(75) **Inventors:** **Daniel M. Glenning**, Middletown;
Bruce E. Sandman, Tiverton, both of
RI (US)

(73) **Assignee:** **The United States of America as
represented by the Secretary of the
Navy**, Washington, DC (US)

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367/119; 367/141; 367/149

(58) **Field of Search** **181/118, 120,**
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128, 141, 149; 73/587, 620, 640, 645

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Primary Examiner—Robert E. Nappi

Assistant Examiner—Edgardo San Martin

(74) *Attorney, Agent, or Firm*—Michael J. McGowan;
James M. Kaischke; Prithvi C. Lall

(57) **ABSTRACT**

A submarine bow dome acoustic sensor assembly comprises an outer hull bow portion, an inner pressure hull wall extending athwartships and in conjunction with the outer hull bow portion defining a free-flood compartment, and an acoustic bow panel disposed in the compartment and connected to the pressure hull wall by acoustically isolating supports. A laser scanner is disposed in the compartment and is oriented so as to project a laser beam onto a surface of the acoustic bow panel, and a sensor is disposed in the compartment and oriented so as to receive reflections of the laser beam off the acoustic panel and to transmit data from which a position of a sound generating source can be determined.

14 Claims, 3 Drawing Sheets

